

## **REMARKS**

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

The Examiner has objected to the Specification because of minor informalities. Therefore, the Specification has been amended to address these matters. Accordingly, removal of the objection to the Specification is hereby requested.

Claim 6 stands rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Claim 6 has been amended to remove the "such as" language identified by the Examiner. It is believed that this amendment removes the grounds for this rejection and notice to that effect is hereby requested.

The Examiner has rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,183,681 to Sullivan et al. in view of U.S. Pat. No. 6,334,548 to Ichikawa et al. and U.S. Pat. No. 5,334,010 to Teng. The Examiner's rejection is traversed for the following reason.

The present invention relates to an injection-molding method for covering a front face and a rear face of a plate-shaped member with a molded layer by injection-molding. The injection-molding method includes the step of preparing a first die having a front side cavity face that will cover the front face of the plate-shaped member, a first gate opening at the front side cavity face, a second gate

avoiding the front side cavity face, and switching means for guiding molding material to either one of the first and second gates. The injection-molding method further includes the steps of preparing a second die having a receiving face for receiving the rear face of the plate-shaped member, and preparing a third die having a rear side cavity face that will cover the rear face of the plate-shaped member and a connecting passage that fluidly connects the second gate to the rear side cavity face. The injection-molding method also includes the steps of sandwiching the plate-shaped member with the first die and the second die and forming a front side cavity with the front side cavity face of the first die and the front face of the plate-shaped member, and injecting a molding material through the first gate into the front side cavity to mold a front side molded layer. The injection-molding method further includes the steps of replacing the second die with the third die and thereby forming a rear side cavity with the rear side cavity face of the third die and the rear face of the plate-shaped member, and injecting a molding material from the second gate through the connecting passage into the rear side cavity to mold a rear side molded layer.

Sullivan involves a multi-stage insert molding method. In particular, a molded assembly (10) includes two halves (10A, 10B) that are divided by a parting line (12) and an inserted component (14). Cavity A1 includes a cavity (16) and a runner (22). Cavity B1 includes a runner (20) and location pins (18). Cavity B2 is also provided with a cavity (24).

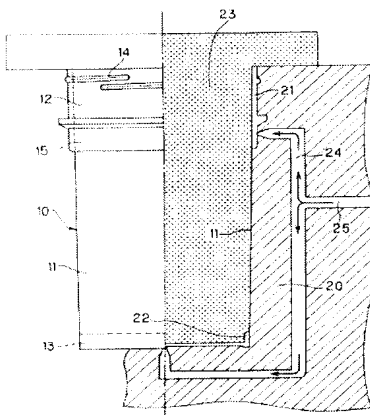
Ichikawa relates to a plastic container formed by an insert-injection process. Specifically, Ichikawa includes a mold (20) for making a coffee-container (10). The mold has the first cavity (21) for forming a large-diameter-formed member of the

coffee-container (10) and a second cavity (22) for forming a small-diameter-formed member of coffee-container (10).

Teng involves a valve gated injection molding apparatus. In particular, Teng includes a mold (20) with steel nozzles (14) to disperse plastic melt to gates (16) that lead to different cavities (18). Teng further includes a valve member (80) with an elongated shaft (82) that has a tapered front end (84) and an enlarged head (86) at the rear end (88). The rear end (88) of the valve member (80) is engaged by a piston (90) that reciprocates in a cylinder (92).

Amended claim 6 of the present application recites the step of "injecting a molding material from the second gate through the connecting passage into the rear side cavity to mold a rear side molded layer." None of the references, either alone or in combination, teach or suggest this step. For reference, claim 6 of the present application also recites that the second gate is part of the first die and the connecting passage is part of the third die. In support of the rejection, the Examiner points to the runners (20, 22) of Sullivan as being the connecting passage of the present application. In recognition that Sullivan lacks the second gate, the Examiner cites to Ichikawa.

However, Ichikawa fails to cure the deficiencies of Sullivan. As mentioned hereinbefore, Ichikawa relates to making a coffee-container (10). For convenience, Fig. 2 of Ichikawa is reproduced below.



Review of Ichikawa reveals one die (20) that includes a runner (24) with two branches that are supplied by the gate (25). The top branch (unnumbered) supplies the first cavity (21) and the bottom branch (unnumbered) supplies the second cavity (22). However, neither of the branches of the runner (24) of the die (20) supplies a second die. The combination of Ichikawa with Sullivan would not result in the step as recited in claim 6 of the present application. At best, the combination of Sullivan and Ichikawa would result in an injection molding apparatus with multiple dies that each have multiple runners that go between the gates and the cavities. However, the combination of Sullivan and Ichikawa would not allow for the step of injecting the molding material from the first die into the third die, and then into the cavity as recited by claim 6 of the present application. Finally, it is noted that Teng is cited for teaching the switching means and does not cure the above mentioned deficiency with regard to the required step. Therefore, it is respectfully submitted that the proposed combination of references would not arrive at invention defined in claim 6, and the rejection of claim 6 should be removed.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is

invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. SHM-16129.

Respectfully submitted,

RANKIN, HILL & CLARK LLP

By /Kevin M. Goodman/  
Kevin M. Goodman, Reg. No. 63864

38210 Glenn Avenue  
Willoughby, Ohio 44094-7808  
(216) 566-9700